MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION



Water and Wastewater Policy Group

South Overlea Drive Septic Survey TECHNICAL APPENDIX

April 20, 2017

TABLE OF CONTENTS	Page No.
<u>Appendix</u>	
Background	A1
Survey Area Properties	A1
Existing Conditions	A3
Survey Results	A7
Recommendations	A11
Figures and Tables	
Figure A1: Existing ConditionsFigure A2: Potential Septic System Constraints	A6
Figure A2: Potential Septic System Constraints	A10
Table A1: Properties and Survey Applicants	A1-A2
Table A2: Existing Conditions	A3-A5
Table A3: Potential Constraints	A7-A9
Table A4: Service Recommendations	A12-A14

BACKGROUND

This appendix provides additional, detailed information on which the accompanying Survey Report is based.

SURVEY AREA PROPERTIES

South Overlea Drive Septic Survey Area – Table A1: Properties and Survey Applicants				
Table Legend Properties of Owners Requesting a Septic Survey Properties Added to the Survey Area by DEP				
Applicants/Owners Property Information* Request Summary				
lan & Natalie Beiser 9418 Overlea Dr. (Owners since 2011)	Built: 1989. 1.92 ac. Lot 6, Block E, Potomac Highlands	This property included in the survey area by DEP.		
Phyllis Newfield 9419 Overlea Dr. (Owner prior to 1996)	Built: 1960. 1.55 ac. Lot 26, Block C, Potomac Highlands	This property included in the survey area by DEP.		
Thomas Gabrielle & Karine Garnier 9424 Watts Branch Dr. (Owners since 2014)	Built: 1956. 1.54 ac. Lot 7, Block E, Potomac Highlands	This property included in the survey area by DEP. These owners subsequently expressed an interest in the survey.		
Maryam Mamdouhi 9425 Overlea Dr. (Owner prior to 2002)	Built: 1961. 2.43 ac. Lot 27, Block E, Potomac Highlands	Applicant's 7/15/16 Letter: Property within GHASS Review Area. Repair system installed to correct failure of pre-1975 system. Lack area for future repairs due to wetlands, streams & well.		
Carlos Jr. & Elizabeth Silva 9500 Watts Branch Dr. (Owners since 2016)	Built: 1960. 2.28 ac. Lot 3, Block F, Potomac Highlands	This property included in the survey area by DEP.		
Eric & Laura Henmueller 9501 Overlea Dr. (Owners prior to 2008)	Built: 1984. 2.02 ac. Lot 28, Block C, Potomac Highlands	This property included in the survey area by DEP.		
Judy Scott Feldman 9507 Overlea Dr. (Owner since 1993)	Built: 1965. 0.91 ac. Lot 29, Block C, Potomac Highlands	Applicant's 7/13/16 Letter: Property within GHASS Review Area. Pre-1975 septic system built in 1966 on limited flat area above steep drop off to Watts Br. Limited repair area due to wetlands, streams & well.		
John & Mary Yakaitis 9513 Overlea Dr. (Owners prior to 1999)	Built: 19602.98 ac. Lot 30, Block C, Potomac Highlands	Applicant's 8/2/16 Letter: Property within GHASS Review Area. Existing system previously declared a health emergency. Property not suited for a traditional or innovative repair. [*] Sewer category S-3 was denied. Property at edge of wetlands abutting Watts Br. Suspect existing system polluting the creek. *DEP note: WSCCR 06A-TRV-12 denied under CR 16-237 (7/10/07)		

Table Legend P	roperties of Owners Reques	ting a Septic Survey Properties Added to the Survey Area by DEP
Applicants/Owners	Property Information*	Request Summary
Shengting Pan 9517 Overlea Dr. (Owner since 2012)	Built: 19605.04 ac. Lot 31, Block C, Potomac Highlands	Applicant's 7/13/16 Letter: Property not within GHASS Review Area, but adjacent to those that are. Property has experimental drip system, but no additional area for repairs.
Lawrence Ng & Lisa Liem 9600 Overlea Dr. (Owners since 2009)	Built: 1961. 2.21 ac, Lot 4, Block F, PH	This property included in the survey area by DEP.
Charles Family Trust 9601 Overlea Dr. (Owner since 2016)	Built: 1961. 2.06 ac. Lot 36, Block C, Potomac Highlands	Applicant's 7/18/16 Letter: Property not within GHASS Review Area, but adjacent to those that are. Existing septic built prior to 1975. Property not likely to meet criteria for replacement as lacking needed area for fields and close to wetlands.
Son Chang & Pi Ye 9609 Overlea Dr. (Owners since 2002)	Built: 1961. 2.66 ac. Lot 37, Block C, PH	This property included in the survey area by DEP.
Kevin King 9612 Overlea Dr. (Owner since 2000)	Built: 1971. 2.23 ac. Lot 5, Block F, Potomac Highlands	Applicant's 7/13/16 Letter: Not in GHASS review area, but surrounded by review area properties. Existing system replaced pre-1975 system. Concern about lack area for future repairs due to wetlands, streams & well.
Joshua Charles & Dixon Charles 9613 Overlea Dr. (Owners prior to 2011)	Built: 1958. 1.35 ac. Lot 38, Block C, Potomac Highlands	Applicant's 7/11/16 Letter: Existing septic built prior to 1975. Having to pump out system more frequently than normal.
Bill & Elizabeth Wainger 9617 Overlea Dr. (Owners since 2014)	Built: 1957. 1.81 ac. Lot 39, Block C, Potomac Highlands	Applicant's 7/25/16 Letter: Within GHASS review area. Existing septic built prior to 1975. Concern about seepage pit sitting on subsurface rock. New septic system approved, bit will require clearing a half-acre of forested area.
John & Rosemary Drake 9618 Overlea Dr. (No ownership data)	Built: 1961. 2.22 ac. Lot 6, Block F, Potomac Highlands	Applicant's 7/15/16 Letter: Not in GHASS review area, but those across the street are. Existing septic built prior to 1975. Property not likely to meet criteria for replacement as lacking needed area for fields and close to wetlands.
Marion Peake Tr 9700 Overlea Dr. (Owner prior to 1989)	Built: 1956. 2.03 ac. Pt. Lot 7, Block 6, Glen Hills Sect. 2	This property included in the survey area by DEP.
John & M.E. Stopher 9701 Overlea Dr. (Owners since 1995)	Built: 1956. 1.39 ac. Lot 4, Block 7, Glen Hills Sect. 2	This property included in the survey area by DEP.
June Gloeckler Trust 9704 Overlea Dr. (Owner prior to 2002)	Built: 1969. 2.49 ac. Lot 6, Block 6, Glen Hills Sec. 2	This property included in the survey area by DEP.
Michael & Garefo Caggiano 9708 Overlea Dr. (Owners since 2006)	Built: 1953. 1.31 ac. Lot 5, Block 6, Glen Hills Sect. 2	This property included in the survey area by DEP.
Richard Carroll & Tiffin Shewmake 9715 Overlea Dr. (Owners since 2009)	Built: 1950. 1.41 ac. Lot 3, Block 7, Glen Hills Sect. 2	This property included in the survey area by DEP. These owners subsequently expressed an interest in the survey.
Yujin & Yinghua Wang 9700 Block, Overlea Dr. (Owners since 2002)	Unimproved. 0.82 ac. Lot P4, Block 6, Glen Hills Sect. 2	This property included in the survey area by DEP. These property owners could not have requested a septic survey; however, upon consideration DEP may include an unimproved property within a survey area. These owners subsequently expressed an interest in the survey.
Robert & I. Salcido 9716 Overlea Dr. (Owners since 1999)	Built: 1957. 1.71 ac. Lot 3, Block 6, Glen Hills Sect. 2	This property included in the survey area by DEP.
Emma James 9717 Overlea Dr. (Owner since 1976)	Built: 1977. 1.52 ac. Lot 2, Block 7, Glen Hills Sect. 2	This property included in the survey area by DEP.

EXISTING CONDITIONS

South Overlea Drive Septic Survey Area – Table A2: Existing Conditions					
GHASS: Glen Hills Area Sanitary Study RA: GHASS Review Area All properties served by wells except 9501, 9716, & 9717 Overlea Dr.					
Applicants/Owners Property Information	DPS Permit Notes (2012 & Updates)	GHASS Review Area Notes	Site Visit		
Ian & Natalie Beiser 9418 Overlea Dr. 1.92 ac. Lot 6, Block E, Potomac Highlands	House: 1989. No record. SEWER, S-1.	~ 80% w/in RA: soils rated as poor, stream buffer area (0.38 ac. Outside of RA).	Has public sewer.		
Phyllis Newfield 9419 Overlea Dr. 1.55 ac. Lot 26, Block C, Potomac Highlands	House: 1960. Permit for seepage lagoon, but not built; 146-foot trench system built instead. Perc: 30 min. Permit: 3 bedrooms. Failure reported, 2016. SEWER pending. WSSC connection permit 11/10/16.	~ 60% w/in RA: soils rated as poor, stream buffer area. (0.62 ac. Outside of RA)	Public sewer pending. No area for repair or replacement septic system.		
Thomas Gabrielle & Karine Garnier 9424 Watts Branch Dr. 1.54 ac. Lot 7, Block E, Potomac Highlands	House: 1956.	Outside RA.	Adequate area for a full replacement septic system to the right of the house (facing the front).		
Maryam Mamdouhi 9425 Overlea Dr. 2.43 ac. Lot 27, Block E, Potomac Highlands	House: 1961. 2005 stone trench syst., repaired failed 1960 seepage pits. Perc: 20 min. 4'-deep trench. Permit: 4 bedrooms. SEWER, S-3.	~ 70% w/in RA. Soils rated as poor. (0.73 ac. outside of RA)	There may be an area sufficient for one repair field at the front of the lot to the left of the house (facing the front). Repair could affect wooded area at the north corner of the lot.		
Carlos Jr. & Elizabeth Silva 9500 Watts Branch Dr. 2.28 ac. Lot 3, Block F, Potomac Highlands	House: 1960. No permit record shown. Owner not resident. House: 1960.	~ 80% w/in RA. Soils rated as poor.	Possible area for one repair depending on soil conditions. No records for property.		
Eric & Laura Henmueller 9501 Overlea Dr. 2.02 ac. Lot 28, Block C, Potomac Highlands	House: 1984. No permit record shown. SEWER, S-1.	100% w/in RA. Soils rated as poor. (0.0 ac. Outside of RA)	Has public water & sewer (1982 permit). Sewer must be from Watts Branch Trunk main.		
Judy Scott Feldman 9507 Overlea Dr. 1.91 ac. Lot 29, Block C, Potomac Highlands	House: 1965. 1965 stone trench (no reserve area). Perc: 25 min. 6'-deep trench. Permit: 5 bedrooms	100% w/in RA. Soils rated as poor. (0.0 ac. Outside of RA)	A repair or replacement of the existing septic system, if possible, would be hampered by a lack of available access to the back yard.		
John & Mary Yakaitis 9513 Overlea Dr. 2.98 ac. Lot 30, Block C, Potomac Highlands WSCCR 06A-TRV-12 denied under CR 16-237 (7/10/07)	House: 1969. 1960 seepage pits, 2006 failure, no relief since.	~ 60% w/in RA: soils rated as poor, stream buffer area. (1.19 ac. outside of RA)	Shallow disposal field possible for a single repair. Repair could affect wooded area behind the house. Might need to allow setback exceptions. (Added from DPS comments for WSCCR 06A-TRV-12.)		
Shengting Pan 9517 Overlea Dr. 5.04 ac. Lot 31, Block C, Potomac Highlands	House: 1958. unknown date seepage pits; no permit record. Permit: 3 bedrooms. 12/13/16 update: A conventional supplemental system was installed on 6/15/12 (404' of trench w/ 2' of stone and a BAT tank).	~ 40% w/in RA: soils rated as poor, stream buffer area. (3.02 ac. outside of RA)	House currently served by 3 alternating systems: seepage pits and 2 shallow drainfields. This works well if operated correctly by the owner. No other repair is possible.		
Lawrence Ng & Lisa Liem 9600 Overlea Dr. 2.21 ac, Lot 4, Block F, Potomac Highlands	House: 1961. 1961 seepage pit, 9'-deep pit. Permit: 4 bedrooms; 1-bedroom addition, 2009. Ttank upgraded, used ex. Pits.	~ 20% w/in RA: soils rated as poor, stream buffer area.	Has a possible area for a repair septic system, but that area is heavily wooded.		
Charles Family Trust 9601 Overlea Dr. 2.06 ac. Lot 36, Block C, Potomac Highlands	House: 1962. 1971 stone trench for addition; 6'-deep trench. Perc: 14 min. (1962 seepage pits not adequate; abandoned.) Permit: 4 bedrooms.	~ 10% w/in RA: soils rated as poor, stream buffer area.	Has a possible area for a repair septic system behind the house, but that area is heavily wooded.		

Page A4

South Overlea Drive Septic Survey Area – Table A2: Existing Conditions

GHASS: Glen Hills Area Sanitary Study RA: GHASS Review Area All properties served by wells except 9501, 9716, & 9717 Overlea Dr

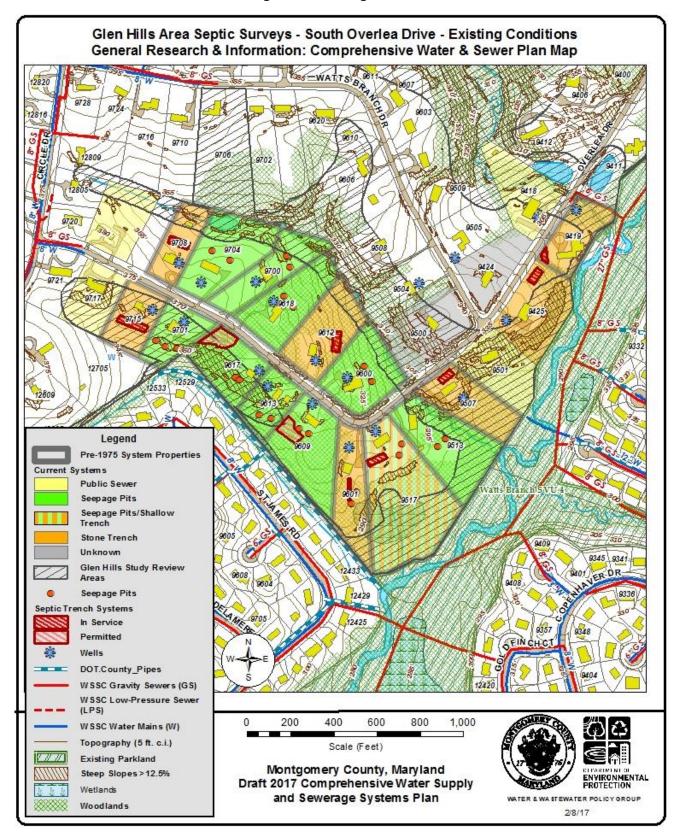
All properties served by wells excep	· · · · · · · · · · · · · · · · · · ·	T	1
Applicants/Owners Property Information	DPS Permit Notes (2012 & Updates)	GHASS Review Area Notes	Site Visit
Son Chang & Pi Ye 9609 Overlea Dr. 2.66 ac. Lot 37, Block C, Potomac Highlands	House: 1961. Seepage pits. (See "Field Visit" for update.)	< 10% w/in RA: soils rated as poor, stream buffer area.	This lot has an approved 10,000 SF septic area for a repair and two replacement systems. The owner never built the addition. The septic area is approved for a four-bedroom house. The house is still served by the original system.
Kevin King 9612 Overlea Dr. 2.23 ac. Lot 5, Block F, Potomac Highlands	House: 1971. 1971 stone trench, 4'-deep trench; no reserve area. New tank in 2000; perc test for addition in 2006. Perc: 5 min. No resident owner.	~ 20% w/in RA: soils rated as poor.	Has a possible area for a repair septic system; the possible repair area is heavily wooded.
Joshua Charles & Dixon 9613 Overlea Dr. 1.35 ac. (58,806 sf) Lot 38, Block C, Potomac Highlands	House: 1958. 1957 seepage pits; 9'-deep pits. Perc: 14 min. Permit: 3 bedrooms.	~ 40% w/in RA: soils rated as poor, stream buffer area.	Has a possible septic repair area at the front of the lot. Repair could affect wooded area to the left of the house.
Bill & Elizabeth Wainger 9617 Overlea Dr. 1.81 ac. (78,843 sf) Lot 39, Block C, Potomac Highlands	House: 1957. 1957 seepage pits, 12/13/16 update: Water table and percolation were completed in 2015. A modern septic with reserve area was approved on 2/24/16 for a replacement dwelling.	~ 60% w/in RA: soils rated as poor, stream buffer area.	Up-to-standard replacement system approved in Feb. 2016 (see Permit Notes). Replacement system will affect wooded area on the property.
John & Rosemary Drake 9618 Overlea Dr. 2.22 ac. Lot 6, Block F, Potomac Highlands	House: 1961. 1960 seepage pit, 9'-deep pit. Permit: 5 bedrooms.	~ 20% w/in RA: soils rated as poor.	Has a possible area for a repair septic system; the possible repair area is heavily wooded.
Marion Peake Tr. 9700 Overlea Dr. 2.03 ac. Lot P7, Block 6, Glen Hills Sect. 2	House: 1956. Seepage pits. 3 BR. Perc: 30 min. No other comments	~ 20% w/in RA: soils rated as poor, stream buffer area.	Possible repair area at the south end of the lot. Could require moving wells (now at front) behind the house and downhill from a septic repair system.
John & M.E. Stopher 9701 Overlea Dr. 1.39 ac. (60,355 sf) Lot 4, Block 7, Glen Hills Sect. 2	House: 1956. 1956 permit: seepage pit, 4 BR. No other comments.	~ 80% w/in RA: soils rated as poor, stream buffer area.	There is suitable area for at least one repair. We had a good perc in '02 done for a possible addition.
June Gloeckler Trust 9704 Overlea Dr. 2.49 ac. Lot 6, Block 6, Glen Hills Sec. 2	House: 1959. 1959 permit: seepage pit, 3 BR. Perc: 30 min. No other comments.	~ 20% w/in RA: soils rated as poor, stream buffer area.	Possible repair area at the front of the lot. Could require moving wells (now at front) behind the house and downhill from a septic repair system.
Michael & Garefo Caggiano 9708 Overlea Dr. 1.31 ac. (57,024 sf) Lot 5, Block 6, Glen Hills Sect. 2	House: 1953. 1952 permit: stone trench, 3BR. No reserve area. Perc: 5 min. GW: 5 feet. File notes: possible 1 BR add'n in 2005. Shallow water table.	~ 30% w/in RA: soils rated as poor, stream buffer area.	Possible repair area at the front of the lot. Could require moving wells (now at front) behind the house and downhill from a septic repair system. Water table tests from 2005 show shallow groundwater at rear of lot.
Richard Carroll & Tiffin Shewmake 9715 Overlea Dr. 1.41 ac. (61,550 sf) Lot 3, Block 7, Glen Hills Sec. 2	House: 1950. 2009 permit: stone trench repair, 3 BR; no reserve area. Perc: 27 min.	~ 80% w/in RA: soils rated as poor, stream buffer area.	No repair area exists. Used available area for the current system (see permit notes).
Yujin & Yinghua Wang 9700 Block, Overlea Dr. 0.82 ac. (35,544 sf) Lot P4, Block 6, Glen Hills Sec. 2	Unimproved property; no permit record. Area < RE-1 standard (40,000 sf). Not grandfathered; boundary changed after initial plat in 1947. Does not qualify as a building lot; substandard lot area for RE-1	~ 20% w/in RA: soils rated as poor, stream buffer area.	Vacant lot. Substandard size for well and septic given required septic system setbacks.

Page A5

GHASS: Glen Hills Area Sanitary Study **RA**: GHASS Review Area All properties served by wells except 9501, 9716, & 9717 Overlea Dr.

All properties served by wells except 9501, 9716, & 9717 Overlea Dr.				
Applicants/Owners Property Information	DPS Permit Notes (2012 & Updates)	GHASS Review Area Notes	Site Visit	
Robert & I. Salcido 9716 Overlea Dr. 1.71 ac. (74,643 sf) Lot 3, Block 6, Glen Hills Sec. 2	House 1957. 1957 permit. No other info. Public sewer provided after 1992. Still S-6; correction needed.	~ 20% w/in RA: < 10 % soils rated as poor, more stream buffer area.	WSSC permit records show sewer provided after 1992	
Emma James 9717 Overlea Dr. 1.52 ac. (66,166 sf) Lot 2, Block 7, Glen Hills Sec. 2	House: 1977. No permit record.	~ 80% w/in RA: soils rated as poor, stream buffer area.	Has sewer service.	

Figure A1 Existing Conditions



SURVEY RESULTS

Applicants/Owners Property Information	Pre-1975 Systems & Type	Potential Constraint Areas	Future Repair or Replacement
lan & Natalie Beiser 9418 Overlea Dr.	None: public sewer service.	~90% with potential constraints: well setback, stream setback, & soils.	
1.92 ac. Lot 6, Block E, Potomac Highlands		0.19 ac. outside of potential constraint areas	
Phyllis Newfield 9419 Overlea Dr. 1.55 ac.	Stone trench (failed)	~90% with potential constraints: well setback, stream setback, steep slopes, & soils.	No onsite repair or replacement is possible.
Lot 26, Block C, Potomac Highlands		0.16 ac. outside of potential constraint areas	
Thomas Gabrielle & Karine Garnier 9424 Watts Branch Dr.	Unknown (assumed from age of the house)	~50% with potential constraints: well setbacks, steep slopes, & soils.	Full replacement may be possible.
1.54 ac. Lot 7, Block E, Potomac Highlands		0.77 ac. outside of potential constraint areas	
Maryam Mamdouhi 9425 Overlea Dr. 2.43 ac.	None (existing stone trench from 2005)	~90% with potential constraints: well & septic system setbacks, stream setback, steep slopes, & soils.	One repair may be possible, dependent on soils.
Lot 27, Block E, Potomac Highlands		0.24 ac. outside of potential constraint areas.	
Carlos Jr. & Elizabeth Silva 9500 Watts Branch Dr. 2.28 ac. Lot 3, Block F, Potomac Highlands	Unknown (assumed from age of the house	~ 80% with potential constraints: drainfield & well setbacks (assumed), stream setback, steep slopes, and soils. 0.46 ac. outside of potential constraint areas	One repair may be possible, dependent on soils.
Eric & Laura Henmueller 9501 Overlea Dr. 2.02 ac. Lot 28, Block C, Potomac Highlands	None: public sewer service.	100% with potential constraints: well setback, stream setback, steep slopes, & soils.	Has public water & sewe (1982 permit). Sewer must be from Watts Branch Trunk main.
Judy Scott Feldman 9507 Overlea Dr. 1.91 ac. Lot 29, Block C, Potomac Highlands	Stone trench	100% with potential constraints: well setback, stream setback, floodplain, steep slopes, & soils. 0.00 ac. outside of potential constraint areas	One repair may be possible, but dependent on rear access and soil conditions May affect forested areas
John & Mary Yakaitis 9513 Overlea Dr. 2.98 ac. Lot 30, Block C, Potomac Highlands WSCCR 06A-TRV-12 denied under CR 16-237 (7/10/07)	Seepage pits (failed)	~ 80% with potential constraints: seepage pits & well (assumed) setbacks, stream setback, floodplain, steep slopes, & soils. 0.60 ac. outside of potential constraint areas	One shallow drip system repair (suggested, not permitted, in 2006) may be possible, dependent on soils. Might need to allow setback exceptions
Shengting Pan 9517 Overlea Dr. 5.04 ac. Lot 31, Block C, Potomac Highlands	Seepage pits (still part of the existing system)	~ 80% with potential constraints: seepage pits, drainfield & well setbacks; stream & wetland setbacks, steep slopes, & soils. 1.01 ac. outside of potential constraint areas	May affect forested area. No onsite repair or replacement is possible.
Lawrence Ng & Lisa Liem 9600 Overlea Dr. 2.21 ac, Lot 4, Block F, Potomac Highlands	Seepage pits	~ 70% with potential constraints: drainfield & well setbacks, stream setbacks, steep slopes, & soils 0.66 ac. Outside of potential constraint areas.	One repair may be possible. May affect forested area
Charles Family Trust (Dixon) 9601 Overlea Dr. 2.06 ac. Lot 36, Block C, Potomac Highlands	Stone trench (replaced seepage pits); no reserve area.	~ 90% with potential constraints: seepage pits & well setbacks, stream & wetland setbacks, steep slopes, & soils. 0.21 ac. outside of potential constraint areas	One repair may be possible. May affect forested area

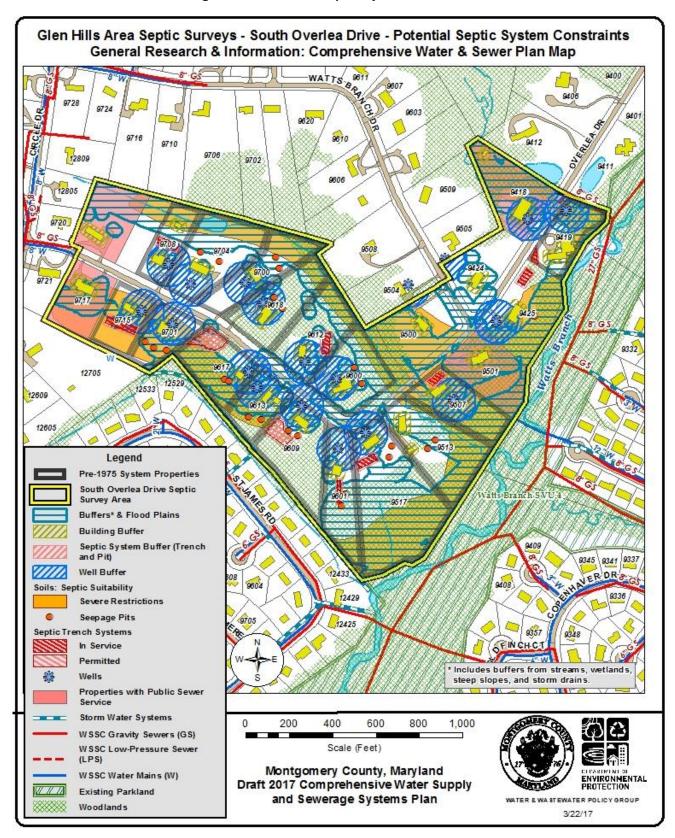
4/20/17 Page A8

Applicants/Owners Property Information	Pre-1975 Systems & Type	Potential Constraint Areas	Future Repair or Replacement
Son Chang & Pi Ye 9609 Overlea Dr. 2.66 ac. Lot 37, Block C, Potomac Highlands	Seepage pits	~ 30% with potential constraints: seepage pits & well setbacks, & steep slopes. 1.86 ac. outside of potential constraint	Replacement is permitted May affect forested areas.
Kevin King	Stone trench	areas ~ 70% with potential constraints:	One repair may be
9612 Overlea Dr. 2.23 ac.	Stone trenon	drainfield & well setbacks, stream setback, steep slopes, & soils.	possible. May affect forested areas
Lot 5, Block F, Potomac Highlands		0.67 ac. outside of potential constraint areas	,
Joshua Charles & Dixon Charles 9613 Overlea Dr. 1.35 ac. (58,806 sf)	Seepage pits	~ 80% with potential constraints: seepage pits & well setbacks, steep slopes, & soils.	One repair may be possible, dependent on soils.
Lot 38, Block C, Potomac Highlands		0.27 ac. outside of potential constraint areas	May affect forested areas
Bill & Elizabeth Wainger 9617 Overlea Dr. 1.81 ac. (78,843 sf)	Seepage pits.	~ 80% with potential constraints: seepage pits (assumed) & well setbacks, steep slopes, & soils.	Replacement is permitted May affect forested areas.
Lot 39, Block C, Potomac Highlands		0.36 ac. outside of potential constraint areas	
John & Rosemary Drake 9618 Overlea Dr. 2.22 ac.	Seepage pits	~ 70% with potential constraints: seepage pits & well (assumed) setbacks, stream setback, steep slopes, & soils.	One repair may be possible.
Lot 6, Block F, Potomac Highlands		0.19 ac. outside of potential constraint areas	May affect forested areas.
Marion Peake Tr 9700 Overlea Dr. 2.03 ac.	Seepage pits.	~ 70% with potential constraints: seepage pits & well setbacks, stream setback, steep slopes, soils, and difficult	One repair may be possible. May require moving the
Lot P7, Block 6, Glen Hills Sect. 2		to use area at the rear of the property. 0.61 ac. outside of potential constraint areas	existing well.
John & M.E. Stopher 9701 Overlea Dr. 1.39 ac. (60,355 sf) Lot 4, Block 7, Glen Hills Sect. 2	Seepage pits	Virtually 100% with potential constraints: seepage pits & well (assumed) setbacks, steep slopes, & soils. 0.00 ac. outside of potential constraint	One repair may be possible at the rear of the property, depending on soils.
		areas	
June Gloeckler Trust 9704 Overlea Dr. 2.49 ac.	Seepage pits	~ 70% with potential constraints: seepage pits & well (known & assumed) setbacks, stream setback, steep slopes,	One repair may be possible. May require moving the
Lot 6, Block 6, Glen Hills Sec. 2		and soils. 0.75 ac. outside of potential constraint areas	existing well.
Michael & Garefo Caggiano (9708 Overlea Dr.	Stone trench	~ 90% with potential constraints: drainfield & well setbacks, stream	One repair may be possible.
1.31 ac. (57,024 sf) Lot 5, Block 6, Glen Hills Sect. 2		setback, steep slopes, and soils. 0.13 ac. outside of potential constraint areas	May require moving the existing well
Richard Carroll & Tiffin Shewmake 9715 Overlea Dr. 1.41 ac. (61,550 sf)	Stone trench	~ 90% with potential constraints: drainfield & well setbacks, steep slopes, and soils.	No onsite repair or replacement is possible.
Lot 3, Block 7, Glen Hills Sec. 2		0.14 ac. outside of potential constraint areas	
Yujin & Yinghua Wang 9700 Block, Overlea Dr.	Unimproved	~ 40% with potential constraints: steep slopes, and soils.	
0.82 ac. (35,544 sf) Lot P4, Block 6, Glen Hills Sec. 2		0.49 ac. outside of potential constraint areas	

4/20/17 Page A9

South Overlea Drive Septic Applicants/Owners Property Information	Pre-1975 Systems & Type	Potential Constraint Areas	Future Repair or Replacement
Robert & I. Salcido 9716 Overlea Dr. 1.71 ac. (74,643 sf) Lot 3, Block 6, Glen Hills Sec. 2	None: public sewer service.	~ 50% with potential constraints: stream setback, steep slopes, and soils. 0.86 ac. outside of potential constraint areas	None: public sewer service.
Emma James 9717 Overlea Dr. 1.52 ac. (66,166 sf) Lot 2, Block 7, Glen Hills Sec. 2	None: public sewer service.	~ 80% with potential constraints: steep slopes and soils. 0.30 ac. outside of potential constraint areas	None: public sewer service.

Figure A2: Potential Septic System Constraints



RECOMMENDATIONS

Of the twenty-four properties included in the septic survey area, the following sixteen are recommended for inclusion in the Special Sewer Service Area. Of these, thirteen will need sewer category changes from S-6 to S-3; all thirteen lots will be restricted to a single sewer hookup only. (See Table A4, pages A13 – A15.)

- Three properties have no available septic repair or replacement area according to DPS: #9419, #9517, and #9715. Of these, one property (#9419) is already approved for public sewer service, owing to a prior septic system failure.
- Eight properties have potential septic constraints that combined indicate that the future use of onsite septic systems is questionable: #9425, #9500, #9507, #9513, #9613, #9618, and #9701. These potential constraints include significant limitations from onsite wells, streams, wetlands, and floodplains. Also included are setbacks required from steep slopes, from existing and abandoned onsite septic systems, and from existing buildings. Common percentages of potentially constrained lot areas range between 70 and 100 percent, allowing for potential septic repair or replacement area of between 0.00 and 0.67 acres. Further, any possible repair systems that might be accomplished on these lots will very likely be the last septic systems feasible. A repair septic system could serve a property for several decades. After that however, the owners' options will likely be for either public sewer service or a sewage holding tank. The property at #9425 is already approved for public sewer service and designated as sewer category S-3.
- Four properties, despite potential constraints for septic system use, have potential for repair or replacement septic systems. However, construction of those septic systems will or will likely result in loss of forested areas on each lot. Two properties (#9609 and #9617) have permits for full replacement septic systems, including reserve areas, although neither system has been installed. The areas established for these replacement systems will require the removal of existing forested areas on these lots. For two other properties (#9600 and #9612), DPS has advised that although repair or replacement systems may be possible, construction of those systems will most likely need to occur in forested areas on these lots. All four of these lots are in locations where the extension of public sewer service to other properties in the special sewer service area has the potential to allow for their connection to public sewer service.
- One property (#9501) with existing public sewer service is recommended for inclusion in the Special Sewer Service Area due to its proximity to adjacent and nearby properties recommended for inclusion.

Table A4 provides estimated sewer extension lengths required for sewer service for each property. Possible sewer extension alignments are shown on Figure 5. The main extensions shown are based largely on the conceptual sewer main extensions presented in the Glen Hills Area Sanitary Study. As noted in the previous sanitary study, neither the County nor WSSC program new sewer main extensions. Property owners must request new main extensions. Under WSSC's current extension policies, all extension, connection, and onsite costs are paid by the property owner applicants.

The following eight properties are not recommended for inclusion in the special sewer service area:

- Three properties have existing public sewer service: #9418, #9717, and #9718. A fourth property with
 existing sewer service (#9501) is recommended for inclusion in the Special Sewer Service Area (see
 above).
- One property (#9424), has area available without apparent constraints to allow for a replacement septic system.
- Three properties have potential for repair or replacement septic systems, although this may require either the relocation of existing wells or the provision of public water service: #9700, #9704, and #9708. These are three of the lots in the survey area with the closest proximity to existing public water service.
- The one unimproved property in the survey area lacks sufficient area to qualify as a building lot. This property, located between lots at #9708 and #9718, is also not recommended for inclusion in the special sewer service area.

This report does not recommend five of these eight properties for approval for public sewer service: #9424, #9700, #9704. #9708, and the unimproved lot between #9708 and #9718. However, these properties may become eligible for public sewer service in the future if new sewer main construction in the area allows them to qualify for sewer service under the abutting mains policy. The remaining three lots already have public sewer

service, as noted previously. Two of these lots, #9717 and #9718, are currently designated as sewer category S-6 and are recommended for approval of category S-1 to acknowledge existing sewer service,

Sewer Main Extensions GS: Gravity Sewer LPS: Low-Pressure Sewer (requires an onsite grinder pump)					
Applicants/Owners & Location Property Information	Special Sewer Service Area Recommendations & Comments	Sewer Service Area Category			
lan & Natalie Beiser 9418 Overlea Dr. 1.92 ac. Lot 6, Block E, Potomac Highlands.	EXCLUDE Property has existing public sewer service.	Maintain S-1.	N/A (already served)		
Phyllis Newfield 9419 Overlea Dr. 1.55 ac. Lot 26, Block C, Potomac Highlands	INCLUDE DPS requested public sewer service for this property following a recent septic system failure. No onsite system repair is possible.	Maintain S-1 (one hookup only, for failed septic system).	N/A (service connection approved)		
Thomas Gabrielle & Karine Garnier 9424 Watts Branch Dr. 1.54 ac. Lot 7, Block E, Potomac Highlands	EXCLUDE A full replacement system may be possible without known forest impacts or well relocation.	Maintain S-6.	GS: 270		
Maryam Mamdouhi 9425 Overlea Dr. 2.43 ac. Lot 27, Block E, Potomac Highlands	INCLUDE Potential constraints on approx. 90% of property; only 0.24 ac. outside of constraint areas. One possible repair probably last onsite system.	Maintain S-3.	GS: 400		
Carlos Jr. & Elizabeth Silva 9500 Watts Branch Dr. 2.28 ac. Lot 3, Block F, Potomac Highlands	Unknown septic system. Potential constraints on approx. 80% of property; only 0.46 ac. outside of potential constraint areas. One possible repair probably last onsite system.	Change S-6 to S-3, one hookup only for special sewer service area.	. GS: 700		
Eric & Laura Henmueller 9501 Overlea Dr. 2.02 ac. Lot 28, Block C, Potomac Highlands	INCLUDE Although this lot already has public sewer service, it is recommended for inclusion for the sake of continuity. Properties to either side and across Overlea Drive are recommended for inclusion in the Special Sewer Service Area.	Maintain W-1 and S-1.			
Judy Scott Feldman 9507 Overlea Dr. 1.91 ac. Lot 29, Block C, Potomac Highlands	Potential constraints on 100 % of property; no acreage outside of potential constraint areas. One possible repair probably last onsite system. DPS indicates that one repair may be possible, but that would be dependent on soil conditions and access to the rear of the property. It would also likely be the last repair possible for the lot. Any repair would affect existing forest on the lot.	Change S-6 to S-3, one hookup only for special sewer service area.	GS: 700 LPS: 240 Total: 940		
John & Mary Yakaitis 9513 Overlea Dr. 2.98 ac. Lot 30, Block C, Potomac Highlands WSCCR 06A-TRV-12 denied under CR 16-237 (7/10/07)	INCLUDE Potential constraints on approx. 80% of property; only 0.60 ac. outside of constraint areas. Mapped constraints do not include a 100-foot setback for the well on this lot, which as not located. One possible repair, a shallow drip system, probably last onsite system repair. This repair would be dependent on soils, might need to allow setback exceptions, and could affect forested areas.	Change S-6 to S-3, one hookup only for special sewer service area.	GS: 700 LPS: 470 Total: 1170		
Shengting Pan 9517 Overlea Dr. 5.04 ac. Lot 31, Block C, Potomac Highlands	INCLUDE Potential constraints on 80 % of property; 1.01 ac. outside of potential constraint areas. DPS advised that no further repair or replacement system is feasible.	Change S-6 to S-3, one hookup only for special sewer service area.	GS: 700 LPS: 620 Total: 1320		
Lawrence Ng & Lisa Liem 9600 Overlea Dr. 2.21 ac, Lot 4, Block F, Potomac Highlands	INCLUDE Potential constraints on approx. 70% of property; only 0.66 ac. outside of potential constraint areas. One possible repair could affect existing forest on the lot and would probably be last onsite system possible.	Change S-6 to S-3, one hookup only for special sewer service area.	GS: 700 LPS: 470 Total: 1170 - OR LPS: 1310		

Page A13

South Overlea Drive Septic Survey Area – Table A4: Service Recommendations for WSCCR 17-TRV-07G				
Sewer Main Extensions GS: Gravity Sewer LPS: Low-Pressure Sewer (requires an onsite grinder pump)				
Applicants/Owners & Location Property Information	Special Sewer Service Area Recommendations & Comments	Sewer Service Area Category		
Charles Family Trust 9601 Overlea Dr. 2.06 ac. Lot 36, Block C, Potomac Highlands	INCLUDE Potential constraints on approx. 90% of property; only 0.21 ac. outside of potential constraint areas. One possible repair could affect existing forest on the lot and would probably be last onsite system possible.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 1480'	
Son Chang & Pi Ye 9609 Overlea Dr. 2.66 ac. Lot 37, Block C, Potomac Highlands	INCLUDE Potential constraints on approx. 30% of property; 1.86 ac. outside of potential constraint areas. DPS has permitted a full replacement system, although that could affect existing forest on the lot. The forest issue aside, the lot is recommended for inclusion for the sake of continuity. Properties to either side and across Overlea Drive are recommended for inclusion in the Special Sewer Service Area.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 1310'	
Kevin King 9612 Overlea Dr. 2.23 ac. Lot 5, Block F, Potomac Highlands	INCLUDE Potential constraints on approx. 70% of property; 0.67 ac. outside of potential constraint areas. One possible repair could affect existing forest on the lot and would probably be last onsite system possible.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 1180'.	
Joshua Charles & Dixon Charles (since at least 2011) 9613 Overlea Dr. 1.35 ac. (58,806 sf) Lot 38, Block C, Potomac Highlands	INCLUDE Potential constraints on approx. 80% of property; only 0.27 ac. outside of potential constraint areas. One possible repair would depend on soil suitability, could affect existing forest on the lot, and would probably be last onsite system possible.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 1180'	
Bill & Elizabeth Wainger 9617 Overlea Dr. 1.81 ac. (78,843 sf) Lot 39, Block C, Potomac Highlands	INCLUDE Potential constraints on approx. 80% of property; only 0.36 ac. outside of potential constraint areas. DPS has permitted a full replacement system, although that would affect existing forest on the lot. The lot is also recommended for inclusion for the purpose of continuity. Properties to either side and across Overlea Drive are recommended for inclusion in the Special Sewer Service Area.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 940'	
John & Rosemary Drake 9618 Overlea Dr. 2.22 ac. Lot 6, Block F, Potomac Highlands	Potential constraints on approx. 70% of property; only 0.19 ac. outside of potential constraint areas. One possible repair could affect existing forest on the lot, and would probably be last onsite system possible.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 800'	
Marion Peake Tr 9700 Overlea Dr. 2.03 ac. Lot P7, Block 6, Glen Hills Sect. 2	EXCLUDE Potential constraints on approx. 70% of property; 0.61 ac. outside of potential constraint areas. One possible repair could require moving the existing well perhaps to the rear of the lot. As an alternative, the extension of public water service would remove the need for the well altogether.	Maintain S-6.	LPS: 640'	
John & M.E. Stopher 9701 Overlea Dr. 1.39 ac. (60,355 sf) Lot 4, Block 7, Glen Hills Sect. 2	INCLUDE Potential constraints on 100 % of property; no acreage outside of potential constraint areas. DPS indicates that one repair may be possible, but that would be dependent on soil conditions. It would also likely be the last repair possible for the lot.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 520'	
June Gloeckler Trust 9704 Overlea Dr. 2.49 ac. Lot 6, Block 6, Glen Hills Sec. 2	Potential constraints on approx. 70% of property; 0.75 ac. outside of potential constraint areas. One possible repair could require moving the existing well perhaps to the rear of the lot. As an alternative, the extension of public water service would remove the need for the well altogether.	Maintain S-6.	LPS: 520'	
Michael & Garefo Caggiano 9708 Overlea Dr. 1.31 ac. (57,024 sf) Lot 5, Block 6, Glen Hills Sect. 2	Potential constraints on approx. 90% of property; only 0.13 ac. outside of potential constraint areas. One possible repair could require moving the existing well perhaps to the rear of the lot. As an alternative, the extension of public water service would remove the need for the well altogether.	Maintain S-6.	LPS: 370'	

4/20/17 Page A14

South Overlea Drive Septic Survey Area – Table A4: Service Recommendations for WSCCR 17-TRV-07G Sewer Main Extensions GS: Gravity Sewer LPS: Low-Pressure Sewer (requires an onsite grinder pump)			
Applicants/Owners & Location Property Information	Special Sewer Service Area Recommendations & Comments	Sewer Service Area Category	Sewer Main Extensions
Richard Carroll & Tiffin Shewmake 9715 Overlea Dr. 1.41 ac. (61,550 sf) Lot 3, Block 7, Glen Hills Sec. 2	INCLUDE Potential constraints on 90% of property; only 0.14. ac. outside of potential constraint areas. DPS advised that no further repair or replacement system is feasible.	Change S-6 to S-3, one hookup only for special sewer service area.	LPS: 320'
Yujin & Yinghua Wang 9700 Block, Overlea Dr. 0.82 ac. (35,544 sf) Lot P4, Block 6, Glen Hills Sec. 2	EXCLUDE This property is not improved. DPS advised that given its substandard size and configuration, the property would not be suitable for a well and septic system. M-NCPPC advised that the property cannot be considered as a building lot.	Maintain S-6.	LPS: 240
Robert & I. Salcido (since 1999) 9716 Overlea Dr. 1.71 ac. (74,643 sf) Lot 3, Block 6, Glen Hills Sec. 2	EXCLUDE Although designated a sewer category S-6, this property has existing public sewer service.	Correct S-6 to S-1, utility service error.	N/A
Emma James (since 1976? Or 2010?) 9717 Overlea Dr. 1.52 ac. (66,166 sf) Lot 2, Block 7, Glen Hills Sec. 2	EXCLUDE Although designated a sewer category S-6, this property has existing public sewer service.	Correct S-6 to S-1, utility service error.	N/A